

Notice of Allowability

Application No.

09/775,936

Examiner

Jamal A Fox

Applicant(s)

AKERS ET AL.

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/22/2004.
2. ☒ The allowed claim(s) is/are 4,5,7-10,26,27,30 and 32-37 which have been renumbered as 1-15 respectively.
3. ☒ The drawings filed on 22 October 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 03/22/2005.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Allowable Subject Matter

1. Claims 4, 5, 7-10, 26, 27, 30 and 32-37 of which have been renumbered as 1-15 respectively are allowed.
2. The following is an examiner's statement of reasons for allowance: Regarding claims 1-15, the prior art of record fails to teach of a data loop extension for a communication system comprising: a transmission line that supports G.shdsl PAM-16 coding and supports a transmission rate of approximately 1.544 Mbps, where the transmission line is a 26 gauge bi-directional copper pair, and the distance between each ADSL link between the line card and the CPE is approximately 41,000 feet, and a power supply unit coupled to the line card configured to provide approximately 30 watts to the transmission line, a second repeater coupled between the first and second ends of the transmission line where the distance between the second repeater and the first repeater is approximately 9,000 feet, ADSL links configured to instantaneously burst to a data rate of up to approximately 1.544 Mbps, one repeater being an add/drop repeater, an ATM controller configured to generate clock and transmission information, an ATM switch configured to perform bandwidth management and the data bus that is coupled to the ATM controller, including a TDM backplane bus. The closest reference, Erreygers (U.S. Patent No. 6,236,664), teaches of a data loop extension for a communication system comprising: a symmetric bi-directional transmission line, a remote terminal, a line card, a repeater, a DSLAM and a power supply, but fails a transmission line that supports G.shdsl PAM-16 coding and supports a transmission rate of approximately 1.544 Mbps, where the transmission line is a 26 gauge bi-

Art Unit: 2664

directional copper pair, and the distance between each ADSL link between the line card and the CPE is approximately 41,000 feet, and a power supply unit coupled to the line card configured to provide approximately 30 watts to the transmission line, a second repeater coupled between the first and second ends of the transmission line where the distance between the second repeater and the first repeater is approximately 9,000 feet, ADSL links configured to instantaneously burst to a data rate of up to approximately 1.544 Mbps, one repeater being an add/drop repeater, an ATM controller configured to generate clock and transmission information, an ATM switch configured to perform bandwidth management and the data bus that is coupled to the ATM controller, including a TDM backplane bus. Additionally, Bossemeyer, Jr. et al., teaches of a DSLAM, an ATM switch, a data bus, a line card, and a ATM controller, but fails to teach of a transmission line that supports G.shdsl PAM-16 coding and supports a transmission rate of approximately 1.544 Mbps, where the transmission line is a 26 gauge bi-directional copper pair, and the distance between each ADSL link between the line card and the CPE is approximately 41,000 feet, and a power supply unit coupled to the line card configured to provide approximately 30 watts to the transmission line, a second repeater coupled between the first and second ends of the transmission line where the distance between the second repeater and the first repeater is approximately 9,000 feet, ADSL links configured to instantaneously burst to a data rate of up to approximately 1.544 Mbps, one repeater being an add/drop repeater, an ATM controller configured to generate clock and transmission information, an ATM switch is configured

Art Unit: 2664

to perform bandwidth management and the data bus that is coupled to the ATM controller, including a TDM backplane bus.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with William P. Wilbar on 03/22/2005.

CLAIMS

Claim 35, line 20, after "said", "DSALM" has been changed to --DSLAM--.

Claim 35, line 22, after "said", "DSALM" has been changed to --DSLAM--.

Conclusion

4. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 305-3988, (for formal communications intended for entry)

Or:

(703) 305-3988 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA. 22202, Sixth Floor (Receptionist).

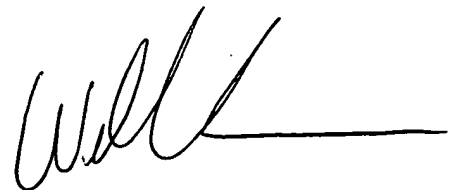
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamal A. Fox whose telephone number is (571) 272-3143. The examiner can normally be reached on Monday-Friday 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9315 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.



Jamal A. Fox



WELLINGTON CHIN
SUPERVISORY PATENT EXAMINER